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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,265	12/03/2003	James Edward Constantz	95,868	4002

7590

01/11/2006

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1176 HOWELL STREET BUILDING 112T CODE 000C  
NEWPORT ,, RI 02841-1708

EXAMINER

MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,265	<b>Applicant(s)</b> CONSTANTZ, JAMES EDWARD	
	<b>Examiner</b> Virginia Manoharan	<b>Art Unit</b> 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors, e.g., typographical, grammar, idiomatic, syntax and etc. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a). Claim 1 is incomplete for omitting essential element(s), such omission amounting to a gap between the elements. See MPEP § 2172.01. The preamble of claim 1 recites "A solar distillation loop apparatus", however, there is no distillation (evaporator and condenser) apparatus mention in the body of the claim. Also, there is no heating means recited nor provided which is needed to cause evaporation of the impure water to pure water ?
- b). Claim 12 fails to further limit the subject matter of claim 1 because there are no additional structural elements recited to add to the apparatus of claim 1, only process limitations are recited. Also the "A method" in claim 12, line 1 is at odds with the "A solar distillation loop apparatus" of claim 1, line 1. [Rewriting claim 1 in independent form obviates this rejection].

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c). The used of abbreviation(s) without first identifying the materials in the claims is improper. The abbreviation should be put in parenthesis following the name of the material to obviate this rejection. See claims 7 and 8, "ABS" and "PVC" respectively.

d). The term "pure" in claims 3 and 12 is a relative term which renders the claim indefinite. The term "pure" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruse (4,504,362) in view of O'Hare (4,459,177) or Bhatt (5,101,593).

Kruse discloses a solar distillation apparatus as claimed in claim 1, which is comprised in combination of: a first pipe section (13) including a substantially straight portion and elevated portion (vapor duct 42) portion; an impure water inflow (34) coupling at one end of the straight portion; a booster fan (44) disposed in the elevated portion of the first pipe section; a second pipe section (43) disposed under the ground surface beneath the first pipe section; and two substantially vertical pipe sections in fluid communication with ends of the second pipe section and ends of the first pipe section; and further recites the process as claimed in claim 12. See Fig. 3 of the Kruse's

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reference. That the fan is solar powered is obvious in view of O'Hare's suggestion (abstract) that the source of air is solar powered. See also the abstract of the Bhatt's reference. To incorporate the feature suggested by O'Hare or Bhatt to the process and apparatus of Kruse would have been obvious to one of ordinary skill in the art inasmuch as the powering of Kruse's fan is not limited. See Kruse's disclosure at col. 4, lines 18-19, suggesting that the blower fan may be powered in any suitable fashion.

Furthermore, that there are more than one fan i.e., one on each elevated portion of the first pipe section as claimed in claim 1, is unobvious as being a mere matter of additive, i.e., adding more to the known singular fan of Kruse.

Claims 10-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- a). Kobayashi discloses a method and apparatus for extracting and collecting water from soil.
- b). Clavier, Guy and Kaneko all disclose an apparatus and process of distillation to produce fresh water using solar energy.
- c). Coon discloses an in situ desalination system.
- d). Bench et al discloses a method and apparatus for the in situ decontamination of water using solar energy.
- e). Burgos discloses the distillation and elevation of water on top of the water table.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Manoharan whose telephone number is (571) 272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
VIRGINIA MANOHARAN  
PRIMARY EXAMINER  
ART UNIT 1321.1  
11/8/06